

Examiner's position, Applicants have canceled claims 1-8, without prejudice to the possible further prosecution of these claims in a divisional application. In addition, Applicants have amended claim 13 to specify that the transmembrane protein is CD20. Applicants respectfully submit that all of the pending claims 9-13, 16 and 21-23 share a common inventive concept and therefore are properly considered in the single application.

Claims 9-11 which are the elected claims recite a method for active vaccination against B cells expressing CD20 involving administration of a vaccine composition. Claims 12 and 21-23 recite a method for treating B cell non-Hodgkin's lymphoma (NHL) by administration of a vaccine composition defined in the same terms used in claims 9-11. Claims 13 and 16, 17 and 24 define a vaccine composition, using precisely the same terms used in claims 9-11. Thus, the claims now pending have as a single inventive concept of

a vaccine composition comprising at least an immunogenic portion of the extracellular domain of the transmembrane protein, or a xenogeneic homolog thereof, coupled to or administered with an carrier protein effective to break tolerance to the transmembrane protein and a pharmaceutically acceptable adjuvant, wherein the transmembrane protein is CD20, and the use of this composition to induce active immunity to CD20, in particular for the treatment of NHL.

Notwithstanding the Examiner's comment about inherency, there is nothing in the cited patent which relates to this inventive concept. US Patent No. 5,550,214 does not mention CD20, nor the production of a vaccine which targets CD20. Furthermore, to the extent the '214 patent refers to B lymphocytes, it is as a target for stimulation to produce antibodies directed as proteins expressed by other cells. In contrast, in the present case, the target molecule, CD20, is expressed by B cells, and the vaccine acts to stimulate production of polyclonal antibodies against B cells themselves, including malignant B cells.

For this reason, Applicants submit that all of the claims now pending should be considered in a single application, and that the restriction requirement should be withdrawn.

Respectfully Submitted,
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MARKED UP COPY OF AMENDED CLAIMS

13. (Amended) A vaccine composition comprising at least an immunogenic portion of the extracellular domain of the transmembrane protein, or a xenogeneic homolog thereof, coupled to or administered with an carrier protein effective to break tolerance to the transmembrane protein and a pharmaceutically acceptable adjuvant, wherein the transmembrane protein is CD20.

16. (Amended) The composition of claim [15] 13, wherein the vaccine composition comprises a peptide having the sequence given by Seq. ID No 1 or 2.